

Appendix L

U.S. Department of Energy (DOE)

RESPONSE TO COMMENTS

on the Environmental Assessment / RCRA Corrective Measures
Study Report for the Lawrence Berkeley National Laboratory

September 29, 2005

**U.S. Department of Energy Response to Comments on the
Environmental Assessment/RCRA Corrective Measures Study Report
for the Lawrence Berkeley National Laboratory**

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Background

On April 25, 2005, the U.S. Department of Energy (DOE) distributed a Public Notice soliciting comments on an Environmental Assessment (DOE/EA-1527) that evaluated a number of potential remedies for soil and groundwater contamination by hazardous substances at the Lawrence Berkeley National Laboratory (LBNL). No comments were submitted to DOE. Concurrently, the California Department of Toxic Substances Control (DTSC) solicited public comments on an identical document, the Corrective Measures Study (CMS) for LBNL, as well as several related documents, that it had prepared pursuant to the Resource Conservation and Recovery Act (RCRA). The public's comments, together with DTSC's responses, may be viewed under "Facility-Related Documents" at <http://www.dtsc.ca.gov/HazardousWaste/LBNL/index.html>. Because several of these comments concerned radionuclide contamination, over which DTSC has no jurisdiction under RCRA, DOE is providing the following supplemental information in order to give a more complete picture of contamination at LBNL. The numbered comments below are those used by DTSC in their responses to comments.

The DOE has completed investigations of the eight units that had been identified in facility assessments as potential sites of radionuclide releases and concluded that no further action is required at any of these units. For seven of the eight units, DOE found that either 1) no release had occurred or 2) the levels of radionuclides found in soil and groundwater were either within LBNL background levels for those media or they were less than the Preliminary Remediation Goals for soil established by the U.S. Environmental Protection Agency, Region IX. The results of these investigations were presented in the "Summary of Radionuclide Investigations (September, 2003)", which may be found in the Berkeley Public Library as well as on-line at <http://www.lbl.gov/ehs/erp/assets/pdfs/RadionuclidePDFfinal.pdf>.

Tritium contamination that remains in soil, vegetation, and groundwater near the eighth unit, the former National Tritium Labeling Facility (NTLF), has also been investigated extensively. A human health risk assessment was completed in 1997. In addition, an ecological risk assessment concluded that exposure to radionuclides in environmental media at LBNL does not present a substantial risk to ecological receptors. Both of these risk assessments overestimated the potential risk from tritium, because the estimates presumed that the NTLF would continue to operate and emit tritium to the atmosphere over a lifetime of exposure. However, the NTLF ceased operation near the end of 2001, so tritium emissions have decreased greatly and will ultimately be eliminated. Furthermore, the residual tritium in environmental media will continue to decline through tritium decay. This is confirmed by the declining levels of tritium detected in groundwater, with concentrations in all monitoring wells now below the drinking water standard. Based on the results of the risk assessments and the declining levels of tritium in the environment, DOE determined that no additional investigation or remedial action was required or warranted for the former NTLF unit. Nonetheless, DOE will continue to monitor groundwater and surface water, at least through 2008, to assure that current conditions are maintained or improved.

Specific Comment 16-4

“...DOE then took over the handling of the eight radioactively contaminated sites at LBNL for which the DHS Report had expressed serious concern. To date, no report has been released for public review and comment regarding corrective action for clean up of these radioactive sites!”

Response 16-4

Please see “Background” above. A status update on the findings of investigations completed at LBNL was presented by DOE at the RCRA Facility Investigation public meeting held on January 24, 2001. The final results were presented at the Berkeley Community Environmental Advisory Commission meeting on August 7, 2003. The “Summary of Radionuclide Investigations” has been available for public review in the Main Berkeley Public Library since August, 2003. It is also available online at <http://www.lbl.gov/ehs/erp/assets/pdfs/RadionuclidePDFfinal.pdf>.

Specific Comment 16-28

“The Final CMS Report must include a comprehensive description of the various beam targets (including the magnet gap) and the beam dump areas during the Bevatron’s forty-year history, and a sampling strategy to determine where the highest concentrations and types of radioactivity and toxic chemicals/solvents are located.”

Response 16-28

DOE announced on May 5, 2005 that an Environmental Assessment entitled “Demolition of Building 51 and the Bevatron” is being prepared. The University of California will issue an EIR with the same title. Public input to these documents is welcome and comments will be solicited when the draft EA/EIR becomes available.